

AWARD NUMBER: W81XWH-14-1-0112

TITLE: Hemorrhage Control for Major  
Traumatic Vascular Injuries

PRINCIPAL INVESTIGATOR: John B. Holcomb, M.D.

CONTRACTING ORGANIZATION: The University of Texas Health Science Center  
at Houston  
Houston, TX 77225

REPORT DATE: October 2015

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel  
Command  
Fort Detrick, Maryland 21702-5012

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				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) John B. Holcomb, M.D.  E-Mail: john.holcomb@uth.tmc.edu				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  The University of Texas Health Science Center at Houston 7000 Fannin Street, FL 2 Houston, TX 77030-5400				8. PERFORMING ORGANIZATION REPORT	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)  U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
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13. SUPPLEMENTARY NOTES					
14. ABSTRACT The objective of this proposed study is to systematically define the clinical and logistical issues surrounding traditional open vascular surgery and catheter-based hemorrhage control. The hypothesis is that minimally invasive, device-driven and expert-led NCTH control techniques improve survival compared to traditional open vascular surgery. This project will achieve the following aims: 1) Determine current practice patterns for the treatment of patients with NCTH among 4 clinical sites using a retrospective study design (Phase 1a); 2) Conduct a 2-day Delphi Panel meeting of military and civilian experts to gain consensus regarding anatomic, technology, credentialing, competency, and training issues for catheter-based hemorrhage control (Phase 1b); 3) Conduct a prospective 4-site observational study to test the hypothesis that less-invasive device-driven and expert-led hemorrhage control techniques are associated with improved survival in NCTH patients and strengthen the evidence base to inform future development of catheters, devices, and training required for surgeons for catheter-based hemorrhage control (Phase 2). At the end of Y1, the study is nearing completion of data collection for the retrospective study. Analysis of the retrospective data will take place in Y2Q1 with the Delphi following soon thereafter. At the Delphi meeting, the design of the prospective study will be developed and it will be implemented later in Y2.					
15. SUBJECT TERMS Trauma, vascular, hemorrhage, Non-compressible Torso Hemorrhage, coagulation, mortality					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON USAMRMC
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (include area code)
Unclassified	Unclassified	Unclassified	Unclassified	31	

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## **INTRODUCTION**

On September 30, 2014, the U.S. Army Medical Research Acquisition Activity (USAMRAA) awarded a 2-year contract to the University of Texas Health Science Center at Houston (UTHealth). This 2-year, 2-phase project will systematically define the clinical and logistical issues surrounding traditional open vascular surgery and catheter-based hemorrhage control for non-compressible torso hemorrhage (NCTH). The hypothesis is that minimally invasive, device-driven and expert-led NCTH control techniques improve survival compared to traditional open vascular surgery. In addition to UTHealth, Baylor College of Medicine, the University of Texas Health Science Center at San Antonio (UTHSCSA) and the San Antonio Military Medical Center (SAMMC)/US Army Institute of Surgical Research (USAISR) are collaborating.

## **KEYWORDS**

Trauma, Vascular, Hemorrhage, Non-compressible Torso Hemorrhage, Coagulation, Mortality

## **ACCOMPLISHMENTS**

### **What were the major goals of the project?**

#### Calendar Year 2014-2015 Goals/Milestones – Phase I

1. Obtain DOD HPRO and local institutional review board (IRB) Approvals
2. Conduct retrospective data collection
3. Analysis of retrospective data
4. Hold Delphi Meeting

#### Calendar Year 2015-2016 Goals/Milestones – Phase II

1. Obtain regulatory amendment approvals for prospective study
2. Conduct prospective observational study
3. Data Analysis/Publications

### **What was accomplished under these goals?**

#### Milestone 1: Obtain USAMRMC HRPO and participating sites' IRB approvals

**Q1** UT Houston IRB approval was received 26-NOV-2014. We submitted the USAMRMC Human Research Protections Office (HRPO) application on 02-DEC-2014 for review and approval. We also sent the UTHealth IRB approval and study documents to participating sites to submit to their local IRB review and approval. Baylor College of Medicine (BCM) and the University of Texas Health Science Center at San Antonio (UTHSCSA) submitted their local IRB applications in Q1.

**Q2** USAMRMC HRPO approval was obtained 23-JAN-2015. BCM also received local IRB approval on 13-MAR-2015. UTHSCSA submitted their IRB application in late Q1. San Antonio Military Medical Center (SAMMC) requested that their site be changed to the US Army Institute of Surgical Research (USAISR) because USAISR had more developed human subjects and contracting processes. USAISR submitted documents to their IRB in Q2.

**Q3** UTHSCSA received HRPO approval on 27-MAR-2015 and BCM received HRPO approval on 20-APR-2015. USAISR received local IRB approval on 21-June-2015 and received their HRPO approval on 22-June-2015. See Appendix 1 for all IRB/HRPO documents.

**Q4** No updates in Q4.

Milestone 2: Initiate retrospective data collection study.

**Q1** Before the UTHealth IRB submission, we had a series of internal meetings as well as phone calls and emails with external investigators to discuss, revise, and finalize the protocol and case report forms for the retrospective study. The protocol and case report forms were finalized as of 15-NOV-2014. We also submitted information and study documents to UTHealth's Sponsored Projects Administration in order to begin drafting of the subcontracts for the three external sites as the next step to initiating data collection.

**Q2** The subcontracts with the three sites were drafted by UTHealth's Sponsored Projects Administration and sent to the three external sites as the first step to initiating data collection. The subcontracts were sent to the sites on 07-JAN-2015. Contract negotiation has taken longer than expected and at the end of Y1Q2, all three subcontracts were not yet executed. USAISR has requested a Cooperative Research and Development Agreement (CRADA) and a Data Use Agreement (DUA) for this study instead of the standard Federal Demonstration Partnership (FDP) contract we use for all other sites and projects. We expect that the contracts for BCM and UTHSCSA will be executed in early Q3. Because we have not received approval from the GOR for the change in PI for USAISR, we cannot move forward with the CRADA; however, the DUA can move forward. We have developed a REDCap application for the Phase 1 retrospective study, including a data dictionary, codebook and data entry forms. We are finalizing this database application. Once completed, UTHealth will start entering data into the application.

**Q3** UTHSC-Houston, UTHSCSA and BCM have begun the trauma registry query and retrospective data review. We received approval from the GOR for the change in PI and research site to USAISR. Contract negotiations continue with USAISR because they are using a Cooperative Research and Development Agreement (CRADA) instead of the standard Federal Demonstration Partnership (FDP) contract we developed for all sites. The Data Use Agreement (DUA) that ISR also required has been executed by both parties. The Program Manager at USISR contacted UTHealth on 25-June-2015 to request additional documents be sent to the Contract Officer at USAMRAA in order for the change in site to take effect. UTHealth sent the documents to her on 29-JUNE-2015. The REDCap application has been finalized and data entry into the system has begun.

**Q4** UTHealth requested a status update from the Contract Office at USAMRAA on 13-July-2015, and a response was received on 22-JULY-2015 stating that a modification was being prepared to change the study site. We received a request for additional documents on 08-OCT-2015 from USAMRAA. As of 30-SEPT-2015, all relevant data for the retrospective study has been entered by UTHealth. BCM has reviewed 100 charts and expect to completed data entry by 16-OCT-2015. UTHSCSA expects to complete data entry by 30-OCT-2015. USAISR has run the query to identify the patients of interest. They expect to have 40 charts to review.

Milestone 3: Analysis of retrospective data

The data cannot be analyzed until it has been entered. Data for UTHealth is complete. Both BCM and UTHSCSA anticipate finishing data entry by 30-OCT-2015. We are currently programming analytic code and will start to analyze data in November 2015 using the three available sites.

Data finalization will wait until data from USAISR are entered. We expect that data analysis will be completed in early Y2Q2.

**Milestone 4: Hold Delphi Meeting**

The Delphi Meeting is contingent upon the analysis of the retrospective data being complete. We expect the analysis to be completed in January 2016 and therefore the Delphi Meeting will be scheduled soon thereafter.

**What opportunities for training and professional development has the project provided?**

Nothing to report.

**How were the results disseminated to communities of interest?**

Nothing to report. Results will be disseminated at the end of the project.

**What do you plan to do during the next reporting period to accomplish the goals?**

**Milestone 1: Obtain USAMRMC HRPO and participating sites' IRB approvals**

During Y2 of the project, we will ensure that the sites submit continuing reviews to their local IRBS and HRPO.

**Milestone 2: Initiate retrospective data collection study**

During Y2Q1 of the project, we will complete data entry for the retrospective study for all four sites including USAISR.

**Milestone 3: Analysis of retrospective data**

Analysis of the retrospective data will occur after all site data has been entered into REDCap and will be completed after data entry is completed in Y2Q1.

**IMPACT**

**What was the impact on the development of the principal discipline(s) of the project?**

Nothing to report.

**What was the impact on other disciplines?**

Nothing to report.

**What was the impact on technology transfers?**

Nothing to report.

**What was the impact on society beyond science and technology?**

Nothing to report.

**CHANGES/PROBLEMS**

**Changes in approach and reasons for change**

Nothing to report.

**Actual or anticipated problems or delays and actions or plans to resolve them**

One delay is due to the PI and institution change from SAMMC to USAISR that was requested by the PI at SAMMC. This change continues to affect our progress. Data analysis cannot begin until USAISR has entered all their data, however, that process cannot be started until the grants officer at USAMRAA has approved and executed the change and the CRADA has been executed. A lack of responsiveness from multiple grants officers we have contacted has delayed the process. We will continue to work with USAISR and USAMRAA to get all of these items completed early in Y2.

We anticipate that data queries and reviews will continue into Y1Q1 with analysis getting underway in Year 2, Quarter 1. The Delphi Meeting will be scheduled as soon as possible after the data analysis is complete.

**Changes that had a significant impact on expenditures**

Because of a later start than anticipated, sites have not spent as much of their Y1 funding as expected. We have executed a no cost extension to BCM and UTHSCSA to allow them to spend their Y1 funds to complete the retrospective study and participate in the Delphi Meeting. They will receive their Y2 funding when the prospective study has been designed and initiated.

**Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents**

Nothing to report.

**PRODUCTS****Publications, conference papers, and presentations**

Nothing to report.

**Website(s) or other Internet site(s)**

Nothing to report.

**Technologies or techniques**

Nothing to report

**Inventions, patent applications, and/or licenses**

Nothing to report

**Other Products**

Nothing to report

**PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS****What individuals have worked on the project?**

Name:	John Holcomb, MD
Project Role:	Principal Investigator

Nearest Person Months Worked:	1
Contribution to Project:	Dr. Holcomb oversees all aspects of study management and execution. He oversees all study staff, regulatory submissions, patient screening, subject enrollment, and data collection. He actively communicates with all clinical sites for this study to coordinate administration across institutions and to ensure accurate and timely data collection and transfer.
Funding Source:	DOD W81XWH-14-1-0112
Name:	Erin Fox, PhD
Project Role:	Co-Investigator; Project Manager
Nearest Person Months Worked:	2
Contribution to Project:	Dr. Fox oversees the day-to-day communication and overall study coordination for this multisite study. She ensures timely and accurate reporting, including financial and interim research reports. She participated in the creation of the data management system and the Manual of Operation, data cleaning and integration, and coordination of requested data to research investigators. She coordinated the subcontracts and budgets for the research sites. She will also be analyzing the retrospective data when it is ready.
Funding Source:	DOD W81XWH-14-1-0112
Name:	Charles Wade, Ph.D.
Project Role:	Co-Investigator
Nearest Person Months Worked:	1
Contribution to Project:	Dr. Wade participated in the creation of the data management system and the Manual of Operation, data cleaning and integration, and coordination of requested data to research investigators.
Funding Source:	DOD W81XWH-14-1-0112
Name:	Deborah del Junco, Ph.D.
Project Role:	Co-Investigator
Nearest Person Months Worked:	1
Contribution to Project:	Dr. del Junco worked closely with the Data Manager and Project Manager to ensure valid and timely integration of data from all sources. She participated in the creation of the data management system and the Manual of Operation, data cleaning and integration, and coordination of requested data to research investigators. Dr. del Junco retired on 31-AUG-2015 and her responsibilities have been taken over by Dr. Fox.
Funding Source:	DOD W81XWH-14-1-0112



Name: Jeanette Podbielski, R.N.  
Project Role: Clinical Program/Regulatory Director  
Nearest Person Months Worked: 1  
Contribution to Project: Ms. Podbielski managed all regulatory aspects of this study. She assisted with study coordination as well as IRB preparation and submission. She managed the activities of the Research Coordinator and Assistant.  
Funding Source: DOD W81XWH-14-1-0112

Name: Adrian Botello  
Project Role: Research Coordinator  
Nearest Person Months Worked: 5  
Contribution to Project: Mr. Botello assisted with all aspects of study coordination including the attainment and maintenance of all necessary regulatory approvals and guidelines as well as data protection and collection at the UTHealth site. Mr. Botello left UTHealth on 28-AUG-2015. Mr. Jost has taken over his responsibilities.  
Funding Source: DOD W81XWH-14-1-0112

Name: Garrett Jost  
Project Role: Research Assistant  
Nearest Person Months Worked: 5  
Contribution to Project: Mr. Jost has been responsible for identifying eligible patients and performing data collection for those patients at the UTHealth site.  
Funding Source: DOD W81XWH-14-1-0112

Name: Jeff Tomasek, MD  
Project Role: Research Assistant  
Nearest Person Months Worked: 3  
Contribution to Project: Dr. Tomasek identified an appropriate population of patients through the trauma registry, set-up the REDCap database, provided training for the external sites, and coordinates the collection of data from the four clinical sites into the central database that will be used for analysis.  
Funding Source: DOD W81XWH-14-1-0112

Name: Donna Grayson  
Project Role: Administrator  
Nearest Person Months Worked: 1  
Contribution to Project: Ms. Grayson assisted in subcontracting, billing, budgeting and the preparation of financial and interim report reports.  
Funding Source: DOD W81XWH-14-1-011

**Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?**

Dr. del Junco has retired from UTHealth and is no longer involved on this project. The project entitled “Statistical Methodology Development in Blood Transfusion Protocol Research” has ended and therefore Drs. Holcomb and Fox are no longer contributing effort to it. The project entitled “Catheter-based Hemorrhage Control” has ended and therefore Dr. Fox is no longer contributing effort toward it. The project entitled “Evaluation of Lyophilized Plasma (LP) in Models of Vascular Injury and Hemorrhagic Shock has ended and Dr. Holcomb no longer contributes effort to it. New projects include the following:

Title:	Prospective Randomized Optimal Platelet and Plasma Ratio (PROPPR)
Time Commitment:	Holcomb- 20% (Principal Investigator), Fox- 25% (Co-Investigator)
Supporting Agency:	Resuscitation Outcomes Consortium via National Heart, Lung, and Blood Institute (5U01HL077863)
Agency Contact:	Suzanne May, PhD/Gerald van Belle, Ph.D., <a href="mailto:vanbelle@uw.edu">vanbelle@uw.edu</a> 1107 NE 45 <sup>th</sup> St. Ste. 505, Seattle, WA 98105
Performance Period:	01/2015-12/2017
Annual Direct Costs:	\$2,574,358
Project Goals:	The objective of this study is to compare the effectiveness of two different existing prehospital resuscitation approaches in severely injured trauma patients transported by air ambulance in a pragmatic, multicenter, prospective observational study.
Overlap:	No scientific or effort overlap

**What other organizations were involved as partners?**

Baylor College of Medicine  
Houston, TX  
Research collaborator

University of Texas Health Science Center at San Antonio  
San Antonio, TX  
Research collaborator

US Army Institute of Surgical Research  
San Antonio, TX  
Research collaborator

**SPECIAL REPORTING REQUIREMENTS**

Quad Chart uploaded as Appendix 2.

**APPENDICES**

## Appendix 1. IRB and HRPO approval letters

Dr. John Holcomb  
UT-H - MS - Surgery

**NOTICE OF APPROVAL TO BEGIN RESEARCH**

**November 18, 2014**

**HSC-GEN-14-0966** - A Retrospective Analysis of Non-Compressible Torso Hemorrhage

**PROVISIONS:** This approval relates to the research to be conducted under the above referenced title and/or to any associated materials considered by the Committee for the Protection of Human Subjects, e.g. study documents, informed consent, etc.

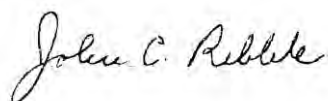
**APPROVED:** By Expedited Review and Approval

**REVIEW DATE:** November 17, 2014

**APPROVAL DATE:** 11/18/2014

**EXPIRATION DATE:** 10/31/2015

**CHAIRPERSON:** John C. Ribble, MD



Subject to any provisions noted above, you may now begin this research.

**CHANGES:** The principal investigator (PI) must receive approval from the CPHS before initiating any changes, including those required by the sponsor, which would affect human subjects, e.g. changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or procedures. The addition of co-investigators must also receive approval from the CPHS. **ALL PROTOCOL REVISIONS MUST BE SUBMITTED TO THE SPONSOR OF THE RESEARCH.**

**INFORMED CONSENT DETERMINATION:**

Waiver of Consent Granted

**HEALTH INSURANCE PORTABILITY and ACCOUNTABILITY ACT (HIPAA):**

**Waiver for Retrospective Chart Review granted:**

Information to be accessed: patient name, medical record number, date of birth, treatment date, date of discharge/death

Information to be retained: date of birth, treatment date, date of discharge/death

**UNANTICIPATED RISK OR HARM, OR ADVERSE DRUG REACTIONS:** The PI will immediately inform the CPHS of any unanticipated problems involving risks to subjects or others, of any serious harm to subjects, and of any adverse drug reactions.

**RECORDS:** The PI will maintain adequate records, including signed consent and HIPAA documents if required, in a manner that ensures subject confidentiality.

**NOTICE OF APPROVAL TO IMPLEMENT REQUESTED CHANGES**

November 26, 2014

**HSC-GEN-14-0966** - Hemorrhage Control for Major Traumatic Vascular Injuries Phase I: A Retrospective Analysis of Non-Compressible Torso Hemorrhage (NCTH)

PI: John Holcomb, MD, FACS

Reference Number: 116932

**PROVISIONS:** Unless otherwise noted, this approval relates to the research to be conducted under the above referenced title and/or to any associated materials considered at this meeting, e.g. study documents, informed consent, etc.

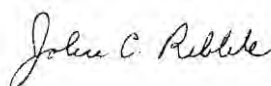
APPROVED: By Expedited Review and Approval

CHANGE APPROVED: Changed study title to reflect the grant title

REVIEW DATE: November 26, 2014

APPROVAL DATE: November 26, 2014

CHAIRPERSON: John C. Ribble, MD



Upon receipt of this letter, and subject to any provisions noted above, you may now implement the changes approved.

**CHANGES:** The principal investigator (PI) must receive approval from the CPHS before initiating any changes, including those required by the sponsor, which would affect human subjects, e.g. changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or procedures. The addition of co-investigators must also receive approval from the CPHS. **ALL PROTOCOL REVISIONS MUST BE SUBMITTED TO THE SPONSOR OF THE RESEARCH.**

**INFORMED CONSENT:** Informed consent must be obtained by the PI or designee(s), using the format and procedures approved by the CPHS. The PI is responsible to instruct the designee in the methods approved by the CPHS for the consent process. The individual obtaining informed consent must also sign the consent document. **Please note that if revisions to the informed consent form were made and approved, then old blank copies of the ICF MUST be destroyed. Only copies of the appropriately dated, stamped approved informed consent form can be used when obtaining consent.**

**UNANTICIPATED RISK OR HARM, OR ADVERSE DRUG REACTIONS:** The PI will immediately inform the CPHS of any unanticipated problems involving risks to subjects or others, of any serious harm to subjects, and of any adverse drug reactions.

**RECORDS:** The PI will maintain adequate records, including signed consent documents if required, in a manner that ensures subject confidentiality.



March 13, 2015

To: Brian J. Eastridge, M.D. (eastridge@uthscsa.edu)  
UTHSCSA

cc: Kristin Rocchi 210-746-4146 (Rocchi@uthscsa.edu)

From: Institutional Review Board

Subject: **Expedited Approval of a New Human Research Protocol (Initial Review)**

**Protocol Number: HSC20150253H**

**Title: A Retrospective Analysis of Non-Compressible Torso Hemorrhage (NCTH)**

**Funding Type:** Other Federal Funding (Non-HHS); **Sponsor:** DoD, W81XWH-14-1-0112; **Grant Title(s):** Hemorrhage Control for Major Traumatic Vascular Injuries

Dear Principal Investigator,

Your request to conduct this minimal risk research was approved by Expedited Review on March 12, 2015, under the following regulation(s):

Collection of existing research or clinical data and/or prospective clinical data (refer to Form B-1, Category 5 for details).

The inclusion of the following vulnerable populations was approved: Children (refer to Form W of the protocol for details).

The request for a waiver of informed consent was approved as detailed in Form F of the protocol. The request for a waiver of the HIPAA authorization was approved as detailed in Form J of the protocol.

**The IRB expiration date:** March 12, 2016. Your progress report must be submitted to the IRB Office 34 days before the IRB meeting that will occur before the study's expiration date.

The IRB application and the following documents were reviewed: Signature Assurance Sheet; Form F - Consent or Documentation Waiver; Form J - HIPAA Waiver; Form M - Data Collection Instrument(s); Form W - Children; Grant Application; **Sponsor's Protocol, NCTH Protocol Version 2, 19Nov2014** Other: UTHSCH IRB Approval, HRPO Approval.

Affiliated institutions which are engaged in this research: UTHSCSA University Health System

Sincerely,

Juanita Ching  
I am the author of this document.  
2015.03.13 14:18:52 -05'00'

Research Compliance Coordinator  
Research Regulatory Programs

*Please retain this document in your IRB correspondence file*

**Institutional Review Board Office** | Mail Code 7830 | 7703 Floyd Curl Drive | San Antonio, Texas 78229-3900  
210.567.8250 | <http://research.uthscsa.edu/irb> | FWA00005928 | IORG0000312

OIRB-50

April 10, 2015



RAMYAR GILANI  
BAYLOR COLLEGE OF MEDICINE  
SURGERY: HCHD DIVISION

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Office of Research  
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Houston, Texas 77030  
Phone: (713) 798-6970  
Fax: (713) 798-6990  
Email: [irb@bcm.tmc.edu](mailto:irb@bcm.tmc.edu)

**H-36237 - PHASE I: A RETROSPECTIVE ANALYSIS OF NON-COMPRESSIBLE TORSO  
HEMORRHAGE (NCTH)**

**APPROVAL VALID FROM 3/3/2015 TO 1/20/2016**

Dear Dr. GILANI

The Institutional Review Board for Human Subject Research for Baylor College of Medicine and Affiliated Hospitals (BCM IRB) is pleased to inform you that the research protocol named above was approved.

The study may not continue after the approval period without additional IRB review and approval for continuation. You will receive an email renewal reminder notice prior to study expiration; however, it is your responsibility to assure that this study is not conducted beyond the expiration date.

Please be aware that only IRB-approved informed consent forms may be used when written informed consent is required.

Any changes in study or informed consent procedure must receive review and approval prior to implementation unless the change is necessary for the safety of subjects. In addition, you must inform the IRB of adverse events encountered during the study or of any new and significant information that may impact a research participants' safety or willingness to continue in your study.

The BCM IRB is organized, operates, and is registered with the United States Office for Human Research Protections according to the regulations codified in the United States Code of Federal Regulations at 45 CFR 46 and 21 CFR 56. The BCM IRB operates under the BCM Federal Wide Assurance No. 00000286, as well as those of hospitals and institutions affiliated with the College.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Julie P. Katkin, MD".

JULIE PAMELA KATKIN, M.D.

Institutional Review Board for Baylor College of Medicine and Affiliated Hospitals







**DEPARTMENT OF THE ARMY**  
**HEADQUARTERS, US ARMY MEDICAL RESEARCH AND MATERIEL COMMAND**  
**810 SCHREIDER STREET**  
**FORT DETRICK, MD 21702-5000**

REPLY TO  
ATTENTION OF

MCMR-RPI

21 June 2015

**MEMORANDUM FOR THE RECORD**

**SUBJECT:** Initial Approval of the Protocol, "Hemorrhage Control for Major Traumatic Vascular Injuries Phase I: A Retrospective Analysis of Non-Compressible Torso Hemorrhage (NCTH)," Principal Investigator: LTC Kevin Chung, MC, US Army Institute of Surgical Research (USAISR), Joint Base San Antonio, Fort Sam Houston, TX, USAISR Protocol H-15-004, IRBNet ID 411591, Protocol Number M-10446, in Support of the Proposal "Hemorrhage Control for Major Traumatic Vascular Injuries," Proposal Principal Investigator: John Holcomb, MD, University of Texas Health Science Center, Houston, Proposal Number 13057176, Award Number W81XWH-14-1-0112

1. The Headquarters, US Army Medical Research and Materiel Command Institutional Review Board (HQ USAMRMC IRB) reviewed the above-referenced research protocol for compliance with applicable human subject protection regulations. There are no outstanding human research protections issues.
2. In accordance with 32 CFR 219.110(a,b), the research qualifies for review via an expedited review procedure as it involves no more than minimal risk and is included in the categories of research listed in the 9 November 1998 Notice in the Federal Register (63 FR 60364-60367), specifically, research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (Category 5).
3. The research protocol is approved for a one-year period, 21 June 2015 – 20 June 2016 pending approval of the Commander, USAISR.
4. The study is approved to review medical record data from AHLTA, Healthcare Artifact and Image Management Solution, CHCS, San Antonio Military Medical Center Trauma Registry, and Essentris databases for patients with non-compressible torso hemorrhage between January 2008 and December 2012.
5. The requirement to obtain informed consent is waived as allowed under 32 CFR 219.116(d) as the research involves no more than minimal risk to the subjects, the waiver will not adversely affect the rights and welfare of the subjects, and the research could not practicably be carried without the waiver.
6. A waiver of the Health Insurance Portability and Accountability Act Privacy Rule requirement to obtain authorization for the use and disclosure of protected health information in research is approved as allowed under DOD 6025.18-R, C7.9.2.2.
7. Approved documents:
  - a. Core Protocol (NCTH Protocol Version 3, dated 13 February 2015);

MCMR-RPI

SUBJECT: Initial Approval of the Protocol, "Hemorrhage Control for Major Traumatic Vascular Injuries Phase I: A Retrospective Analysis of Non-Compressible Torso Hemorrhage (NCTH)," Principal Investigator: LTC Kevin Chung, MC, US Army Institute of Surgical Research (USAISR), Joint Base San Antonio, Fort Sam Houston, TX, USAISR Protocol H-15-004, IRBNet ID 411591, Protocol Number M-10446, in Support of the Proposal " Hemorrhage Control for Major Traumatic Vascular Injuries," Proposal Principal Investigator: John Holcomb, MD, University of Texas Health Science Center, Houston, Proposal Number 13057176, Award Number W81XWH-14-1-0112

- b. Site-specific Protocol (Version 1, dated 11 May 2015); and
- c. Manual of Operations (NCTH MOO Version 3, dated 3/9/15).

8. Please note the following requirements:

a. Submit all proposed changes to the study for review and approval by the HQ USAMRMC IRB before initiating the changes.

b. Promptly report to the HQ USAMRMC IRB:

(1) All unanticipated problems involving risks to subjects or others and related serious adverse events.

(2) Any protocol deviation that affects subjects' safety or rights and/or the integrity of the study.

c. Submit a continuation report, a copy of the current protocol and supporting documents to the HQ USAMRMC IRB in sufficient time to ensure review and approval on or before 20 June 2016.

d. Submit a final study report and request to close the protocol upon completion of all research activities.

9. The IRB Office point of contact for this action is Debra DePaul, RN, MSN, General Dynamics Information Technology Corporation, at 301-619-2620 or [debra.depaul.ctr@mail.mil](mailto:debra.depaul.ctr@mail.mil).



LTC JAY R. BUCCI, MC  
Chair  
Headquarters, US Army Medical Research  
and Materiel Command  
Institutional Review Board

**From:** [Podbielski, Jeanette M](#)  
**To:** [Fox, Erin E](#); [Grayson, Donna A](#); [Wade, Charles E](#); [Tomasek, Jeffrey S](#)  
**Subject:** FW: A-18067.a, HRPO Approval Memorandum (Proposal Log Number 13057176, Award Number W81XWH-14-1-0112) (UNCLASSIFIED)  
**Date:** Friday, January 23, 2015 9:50:06 AM

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To all,

Here is our HRPO approval for the NCTH vascular study for UT/MHH to begin.

Jeanette

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**From:** Evans, Sharon A CIV USARMY MEDCOM USAMRMC (US) [mailto:sharon.a.evans17.civ@mail.mil]  
**Sent:** Friday, January 23, 2015 7:20 AM  
**To:** Holcomb, John B  
**Cc:** Bennett, Jodi H CIV USARMY MEDCOM USAMRMC (US); Eaton, Karen M CTR USARMY MEDCOM USAMRMC (US); Englar, Nancy E CTR USARMY USAMC (US); Evans, Sharon A CIV USARMY MEDCOM USAMRMC (US); Brosch, Laura R CIV USARMY MEDCOM USAMRMC (US); Toups, Krystal R; Stillrich, Amber D CIV USARMY MEDCOM USAMRAA (US); Malloy, Wilbur W CIV USARMY MEDCOM CDMRP (US); Clement, Jessica E CTR USARMY MEDCOM CDMRP (US); regulatorycompliance@tatrc.org; Podbielski, Jeanette M  
**Subject:** A-18067.a, HRPO Approval Memorandum (Proposal Log Number 13057176, Award Number W81XWH-14-1-0112) (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

**SUBJECT:** Initial Approval for the Protocol, "Hemorrhage Control for Major Traumatic Vascular Injuries Phase I: A Retrospective Analysis of Non-Compressible Torso Hemorrhage," Submitted by John B. Holcomb, MD, University of Texas Health Science Center at Houston, Houston, Texas, in Support of the Proposal, "Hemorrhage Control for Major Traumatic Vascular Injuries," Proposal Log Number 13057176, Award Number W81XWH-14-1-0112, HRPO Log Number A-18067.a

1. The subject protocol (version 1.2) was approved by the University of Texas Health Science Center at Houston (UTHSCH) Institutional Review Board (IRB) on 14 January 2015. This protocol was reviewed by the US Army Medical Research and Materiel Command (USAMRMC), Office of Research Protections (ORP), Human Research Protection Office (HRPO) and found to comply with applicable DOD, US Army, and USAMRMC human subjects protection requirements.
2. This no greater than minimal risk study is approved for the retrospective review of 3500 records across the identified research sites.
3. The Principal Investigator has a duty and responsibility to foster open and honest communication with research subjects. The USAMRMC strongly encourages the Principal Investigator to provide subjects with a copy of the research protocol, if requested, with proprietary and personal information redacted as needed.
4. The following are reporting requirements and responsibilities of the Principal Investigator to the HRPO. Failure to comply could result in suspension of funding.

a. Substantive modifications to the research protocol and any modifications that could potentially increase risk to subjects must be submitted to the HRPO for approval prior to implementation. The USAMRMC ORP HRPO defines a substantive modification as a change in Principal Investigator, change or addition of an institution, elimination or alteration of the consent process, change to the study population that has regulatory implications (e.g. adding children, adding active duty population, etc.), significant change in study design (i.e. would prompt additional scientific review), or a change that could potentially increase risks to subjects.

b. All unanticipated problems involving risk to subjects or others must be promptly reported by telephone (301-619-2165), by email ([usarmy.detrick.medcom-usamrmc.other.hrpo@mail.mil](mailto:usarmy.detrick.medcom-usamrmc.other.hrpo@mail.mil)), or by facsimile (301-619-7803) to the HRPO. A complete written report will follow the initial notification. In addition to the methods above, the complete report can be sent to the US Army Medical Research and Materiel Command, ATTN: MCMR-RP, 810 Schreider Street, Fort Detrick, Maryland 21702-5000.

c. Suspensions, clinical holds (voluntary or involuntary), or terminations of this research by the IRB, the institution, the sponsor, or regulatory agencies will be promptly reported to the USAMRMC ORP HRPO.

d. Events or protocol reports received by the HRPO that do not meet reporting requirements identified within this memorandum will be included in the HRPO study file but will not be acknowledged.

e. A copy of the continuing review approval notification by the UTHSCH IRB must be submitted to the HRPO as soon as possible after receipt of approval. According to our records, it appears the next continuing review by the UTHSCH IRB is due no later than 31 October 2015. Please note that the HRPO conducts random audits at the time of continuing review and additional information and documentation may be requested at that time.

f. The final study report submitted to the UTHSCH IRB, including a copy of any acknowledgement documentation and any supporting documents, must be submitted to the HRPO as soon as all documents become available.

g. The knowledge of any pending compliance inspection/visit by the Food and Drug Administration (FDA), Office for Human Research Protections, or other government agency concerning this clinical investigation or research; the issuance of inspection reports, FDA Form 483, warning letters, or actions taken by any regulatory agencies including legal or medical actions; and any instances of serious or continuing noncompliance with the regulations or requirements must be reported immediately to the HRPO.

5. Please note: The USAMRMC ORP HRPO conducts site visits as part of its responsibility for compliance oversight. Accurate and complete study records must be maintained and made available to representatives of the USAMRMC as a part of

their responsibility to protect human subjects in research. Research records must be stored in a confidential manner so as to protect the confidentiality of subject information.

6. Do not construe this correspondence as approval for any contract funding. Only the Contracting Officer/Grants Officer can authorize expenditure of funds. It is recommended that you contact the appropriate contract specialist or contracting officer regarding the expenditure of funds for your project.

7. The HRPO point of contact for this approval is Karen M. Eaton, MS, Human Subjects Protection Scientist, at 301-619-9268/[karen.m.eaton.ctr@mail.mil](mailto:karen.m.eaton.ctr@mail.mil).

SHARON A. EVANS, PhD, CIP  
Deputy Director, Human Research Protection Office  
Office of Research Protections  
US Army Medical Research and Materiel Command

Note: The official copy of this memo is housed with the protocol file at the Office of Research Protections, Human Research Protection Office, 810 Schreider Street, Fort Detrick, MD 21702-5000. Signed copies will be provided upon request.

Classification: UNCLASSIFIED  
Caveats: NONE

**From:** [Podbielski, Jeanette M](#)  
**To:** [Tomasek, Jeffrey S](#); [Wade, Charles E](#); [Grayson, Donna A](#); [Fox, Erin E](#)  
**Subject:** FW: A-18067.b, HRPO Approval Memorandum (Proposal Log Number 13057176, Award Number W81XWH-14-1-0112) (UNCLASSIFIED)  
**Date:** Friday, March 27, 2015 8:54:06 AM

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FYI – here is HRPO approval for UTSA.

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**From:** Evans, Sharon A CIV USARMY MEDCOM USAMRMC (US) [mailto:sharon.a.evans17.civ@mail.mil]  
**Sent:** Friday, March 27, 2015 6:36 AM  
**To:** 'eastridge@uthscsa.edu'  
**Cc:** Bennett, Jodi H CIV USARMY MEDCOM USAMRMC (US); Stillrich, Amber D CIV USARMY MEDCOM USAMRAA (US); Malloy, Wilbur W CIV USARMY MEDCOM CDMRP (US); Clement, Jessica E CTR USARMY MEDCOM CDMRP (US); Englar, Nancy E CTR USARMY USAMC (US); Brosch, Laura R CIV USARMY MEDCOM USAMRMC (US); Toups, Krystal R; Evans, Sharon A CIV USARMY MEDCOM USAMRMC (US); Eaton, Karen M CTR USARMY MEDCOM USAMRMC (US); Holcomb, John B; 'regulatorycompliance@tatrc.org'; Podbielski, Jeanette M  
**Subject:** A-18067.b, HRPO Approval Memorandum (Proposal Log Number 13057176, Award Number W81XWH-14-1-0112) (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

**SUBJECT:** Initial Approval for the Protocol, “Hemorrhage Control for Major Traumatic Vascular Injuries Phase I: A Retrospective Analysis of Non-Compressible Torso Hemorrhage (NCTH),” Submitted by Brian J. Eastridge, MD, University of Texas Health Science Center San Antonio, San Antonio, Texas, in Support of the Proposal, “Hemorrhage Control for Major Traumatic Vascular Injuries,” Submitted by John B. Holcomb, MD, University of Texas Health Science Center at Houston, Houston, Texas, Proposal Log Number 13057176, Award Number W81XWH-14-1-0112, HRPO Log Number A-18067.b

1. The subject protocol (version 2/dated 19 November 2014) was approved by the University of Texas Health Science Center San Antonio (UTHSCSA) Institutional Review Board (IRB) on 12 March 2015. This protocol was reviewed by the US Army Medical Research and Materiel Command (USAMRMC), Office of Research Protections (ORP), Human Research Protection Office (HRPO) and found to comply with applicable DOD, US Army, and USAMRMC human subjects protection requirements.
2. This no greater than minimal risk study is approved for the retrospective review of 3500 records across the identified research sites.
3. The Principal Investigator has a duty and responsibility to foster open and honest communication with research subjects. The USAMRMC strongly encourages the Principal Investigator to provide subjects with a copy of the research protocol, if requested, with proprietary and personal information redacted as needed.
4. The following are reporting requirements and responsibilities of the Principal

Investigator to the HRPO. Failure to comply could result in suspension of funding.

a. Substantive modifications to the research protocol and any modifications that could potentially increase risk to subjects must be submitted to the HRPO for approval prior to implementation. The USAMRMC ORP HRPO defines a substantive modification as a change in Principal Investigator, change or addition of an institution, elimination or alteration of the consent process, change to the study population that has regulatory implications (e.g. adding children, adding active duty population, etc.), significant change in study design (i.e. would prompt additional scientific review), or a change that could potentially increase risks to subjects.

b. All unanticipated problems involving risk to subjects or others must be promptly reported by telephone (301-619-2165), by email ([usarmy.detrick.medcom-usamrmc.other.hrpo@mail.mil](mailto:usarmy.detrick.medcom-usamrmc.other.hrpo@mail.mil)), or by facsimile (301-619-7803) to the HRPO. A complete written report will follow the initial notification. In addition to the methods above, the complete report can be sent to the US Army Medical Research and Materiel Command, ATTN: MCMR-RP, 810 Schreider Street, Fort Detrick, Maryland 21702-5000.

c. Suspensions, clinical holds (voluntary or involuntary), or terminations of this research by the IRB, the institution, the sponsor, or regulatory agencies will be promptly reported to the USAMRMC ORP HRPO.

d. Events or protocol reports received by the HRPO that do not meet reporting requirements identified within this memorandum will be included in the HRPO study file but will not be acknowledged.

e. A copy of the continuing review approval notification by the UTHSCSA IRB must be submitted to the HRPO as soon as possible after receipt of approval. According to our records, it appears the next continuing review by the UTHSCSA IRB is due no later than 12 March 2016. Please note that the HRPO conducts random audits at the time of continuing review and additional information and documentation may be requested at that time.

f. The final study report submitted to the UTHSCSA IRB, including a copy of any acknowledgement documentation and any supporting documents, must be submitted to the HRPO as soon as all documents become available.

g. The knowledge of any pending compliance inspection/visit by the Food and Drug Administration (FDA), Office for Human Research Protections, or other government agency concerning this clinical investigation or research; the issuance of inspection reports, FDA Form 483, warning letters, or actions taken by any regulatory agencies including legal or medical actions; and any instances of serious or continuing noncompliance with the regulations or requirements must be reported immediately to the HRPO.

5. Please note: The USAMRMC ORP HRPO conducts site visits as part of its responsibility for compliance oversight. Accurate and complete study records must

be maintained and made available to representatives of the USAMRMC as a part of their responsibility to protect human subjects in research. Research records must be stored in a confidential manner so as to protect the confidentiality of subject information.

6. Do not construe this correspondence as approval for any contract funding. Only the Contracting Officer/Grants Officer can authorize expenditure of funds. It is recommended that you contact the appropriate contract specialist or contracting officer regarding the expenditure of funds for your project.

7. The HRPO point of contact for this study is Karen M. Eaton, MS, Human Subjects Protection Scientist, at [301-619-9268/karen.m.eaton.ctr@mail.mil](mailto:301-619-9268/karen.m.eaton.ctr@mail.mil).

SHARON A. EVANS, PhD, CIP  
Deputy Director, Human Research Protection Office  
Office of Research Protections  
US Army Medical Research and Materiel Command

Note: The official copy of this memo is housed with the protocol file at the Office of Research Protections, Human Research Protection Office, 810 Schreider Street, Fort Detrick, MD 21702-5000. Signed copies will be provided upon request.

Classification: UNCLASSIFIED  
Caveats: NONE



**From:** [Kline, Andrea J CIV USARMY MEDCOM USAMRMC \(US\)](#)  
**To:** [Wirt, Michael D II COL USARMY MEDCOM AISR \(US\)](#)  
**Cc:** [Chung, Kevin K LTC USARMY MEDCOM AISR \(US\)](#); [Hatem, Victoria D CIV USARMY MEDCOM AISR \(US\)](#); [john.holcomb@uth.tmc.edu](#); [USARMY JB San Antonio MEDCOM AISR Mailbox RCD-HUMAN](#); [Brosch, Laura R CIV USARMY MEDCOM USAMRMC \(US\)](#); [Evans, Sharon A CIV USARMY MEDCOM USAMRMC \(US\)](#); [DePaul, Debra CTR USARMY MEDCOM USAMRMC \(US\)](#); [Dodge, George L CIV USARMY MEDCOM USAMRMC \(US\)](#); [Bennett, Jodi H CIV USARMY MEDCOM USAMRMC \(US\)](#); [Englar, Nancy E CTR USARMY USAMC \(US\)](#); [Malloy, Wilbur W CIV USARMY MEDCOM CDMRP \(US\)](#); [Nowell, Lance L CIV USARMY MEDCOM USAMRAA \(US\)](#)  
**Subject:** M-10446 (A-18067.c) IRB and HRPO Approval Memorandum (USAISR Protocol H-15-004, Proposal Number 13057176, Award Number W81XWH-14-1-0112) (UNCLASSIFIED)  
**Date:** Monday, June 22, 2015 10:35:32 AM  
**Attachments:** [M-10446 Initial Approval Memorandum.pdf](#)

---

Classification: UNCLASSIFIED

Caveats: NONE

SUBJECT: Initial Approval of the Protocol, "Hemorrhage Control for Major Traumatic Vascular Injuries Phase I: A Retrospective Analysis of Non-Compressible Torso Hemorrhage (NCTH)," Principal Investigator: LTC Kevin Chung, MC, US Army Institute of Surgical Research (USAISR), Joint Base San Antonio, Fort Sam Houston, TX, USAISR Protocol H-15-004, IRBNet ID 411591, Protocol Number M-10446, in Support of the Proposal "Hemorrhage Control for Major Traumatic Vascular Injuries," Proposal Principal Investigator: John Holcomb, MD, University of Texas Health Science Center, Houston, Proposal Number 13057176, Award Number W81XWH-14-1-0112, HRPO Log Number A-18067

1. Please see the attached memorandum regarding the Headquarters, US Army Medical Research and Materiel Command Institutional Review Board (HQ USAMRMC IRB) review and approval of this research protocol.
2. This protocol was also reviewed by the USAMRMC, Office of Research Protections, Human Research Protection Office (ORP HRPO) and found to comply with applicable DOD, US Army, and USAMRMC human subjects protection requirements.
3. Do not construe this correspondence as approval for any contract funding. Only the Contracting Officer/Grants Officer can authorize expenditure of funds. It is recommended the appropriate contract specialist or contracting officer be contacted regarding the expenditure of funds for this project.
4. The ORP IRB Office point of contact for this action is Debra DePaul, RN, MSN, Human Subjects Protection Scientist, General Dynamics Information Technology Corporation, at DSN 343-2620 or [debra.depaul.ctr@mail.mil](mailto:debra.depaul.ctr@mail.mil); the POC for the USAMRMC ORP HRPO review is the undersigned at 301-619-7801.

ANDREA J. KLINE, MS, CIP

Director, Institutional Review Board Office

Office of Research Protections

US Army Medical Research and Materiel Command

Note: The official copy of this memo is housed with the protocol file at the Office of Research Protections, Human Research Protection Office, 810 Schreider Street, Fort Detrick, MD 21702-5000. Signed copies will be provided upon request.

<<...>>

Classification: UNCLASSIFIED

Caveats: NONE

**From:** [Podbielski, Jeanette M](#)  
**To:** [Fox, Erin E](#); [Grayson, Donna A](#)  
**Subject:** FW: A-18067.d, HRPO Approval Memorandum (Proposal Log Number 13057176, Award Number W81XWH-14-1-0112) (UNCLASSIFIED)  
**Date:** Monday, April 20, 2015 9:58:45 AM

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BCM is fully approved for vascular.

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**From:** Evans, Sharon A CIV USARMY MEDCOM USAMRMC (US) [mailto:sharon.a.evans17.civ@mail.mil]  
**Sent:** Monday, April 20, 2015 9:38 AM  
**To:** 'rgilani@bcm.edu'; Holcomb, John B  
**Cc:** Bennett, Jodi H CIV USARMY MEDCOM USAMRMC (US); Nowell, Lance L CIV USARMY MEDCOM USAMRAA (US); Malloy, Wilbur W CIV USARMY MEDCOM CDMRP (US); Clement, Jessica E CTR USARMY MEDCOM CDMRP (US); Englar, Nancy E CTR USARMY USAMC (US); Brosch, Laura R CIV USARMY MEDCOM USAMRMC (US); Toups, Krystal R; Evans, Sharon A CIV USARMY MEDCOM USAMRMC (US); Eaton, Karen M CTR USARMY MEDCOM USAMRMC (US); Podbielski, Jeanette M; 'regulatorycompliance@tatrc.org'  
**Subject:** A-18067.d, HRPO Approval Memorandum (Proposal Log Number 13057176, Award Number W81XWH-14-1-0112) (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

**SUBJECT:** Initial Approval for the Protocol, "Hemorrhage Control for Major Traumatic Vascular Injuries Phase I: A Retrospective Analysis of Non-Compressible Torso Hemorrhage (NCTH)," Submitted by Ramyar Gilani, MD, Baylor College of Medicine, Houston, Texas, in Support of the Proposal, "Hemorrhage Control for Major Traumatic Vascular Injuries," Submitted by John B. Holcomb, MD, University of Texas Health Science Center at Houston, Houston, Texas, Proposal Log Number 13057176, Award Number W81XWH-14-1-0112, HRPO Log Number A-18067.d

1. The subject protocol was approved by the Baylor College of Medicine (BCM) Institutional Review Board (IRB) on 10 April 2015. This protocol was reviewed by the US Army Medical Research and Materiel Command (USAMRMC), Office of Research Protections (ORP), Human Research Protection Office (HRPO) and found to comply with applicable DOD, US Army, and USAMRMC human subjects protection requirements.
2. This no greater than minimal risk study is approved for the retrospective review of 3500 records across the identified research sites.
3. The Principal Investigator has a duty and responsibility to foster open and honest communication with research subjects. The USAMRMC strongly encourages the Principal Investigator to provide subjects with a copy of the research protocol, if requested, with proprietary and personal information redacted as needed.
4. The following are reporting requirements and responsibilities of the Principal Investigator to the HRPO. Failure to comply could result in suspension of funding.

a. Substantive modifications to the research protocol and any modifications that could potentially increase risk to subjects must be submitted to the HRPO for approval prior to implementation. The USAMRMC ORP HRPO defines a substantive modification as a change in Principal Investigator, change or addition of an institution, elimination or alteration of the consent process, change to the study population that has regulatory implications (e.g. adding children, adding active duty population, etc.), significant change in study design (i.e. would prompt additional scientific review), or a change that could potentially increase risks to subjects.

b. All unanticipated problems involving risk to subjects or others must be promptly reported by telephone (301-619-2165), by email ([usarmy.detrick.medcom-usamrmc.other.hrpo@mail.mil](mailto:usarmy.detrick.medcom-usamrmc.other.hrpo@mail.mil)), or by facsimile (301-619-7803) to the HRPO. A complete written report will follow the initial notification. In addition to the methods above, the complete report can be sent to the US Army Medical Research and Materiel Command, ATTN: MCMR-RP, 810 Schreider Street, Fort Detrick, Maryland 21702-5000.

c. Suspensions, clinical holds (voluntary or involuntary), or terminations of this research by the IRB, the institution, the sponsor, or regulatory agencies will be promptly reported to the USAMRMC ORP HRPO.

d. Events or protocol reports received by the HRPO that do not meet reporting requirements identified within this memorandum will be included in the HRPO study file but will not be acknowledged.

e. A copy of the continuing review approval notification by the BCM IRB must be submitted to the HRPO as soon as possible after receipt of approval. According to our records, it appears the next continuing review by the BCM IRB is due no later than 20 January 2016. Please note that the HRPO conducts random audits at the time of continuing review and additional information and documentation may be requested at that time.

f. The final study report submitted to the BCM IRB, including a copy of any acknowledgement documentation and any supporting documents, must be submitted to the HRPO as soon as all documents become available.

g. The knowledge of any pending compliance inspection/visit by the Food and Drug Administration (FDA), Office for Human Research Protections, or other government agency concerning this clinical investigation or research; the issuance of inspection reports, FDA Form 483, warning letters, or actions taken by any regulatory agencies including legal or medical actions; and any instances of serious or continuing noncompliance with the regulations or requirements must be reported immediately to the HRPO.

5. Please note: The USAMRMC ORP HRPO conducts site visits as part of its responsibility for compliance oversight. Accurate and complete study records must be maintained and made available to representatives of the USAMRMC as a part of their responsibility to protect human subjects in research. Research records must be

stored in a confidential manner so as to protect the confidentiality of subject information.

6. Do not construe this correspondence as approval for any contract funding. Only the Contracting Officer/Grants Officer can authorize expenditure of funds. It is recommended that you contact the appropriate contract specialist or contracting officer regarding the expenditure of funds for your project.

7. The HRPO point of contact for this study is Karen M. Eaton, MS, Human Subjects Protection Scientist, at [301-619-9268/karen.m.eaton.ctr@mail.mil](mailto:301-619-9268/karen.m.eaton.ctr@mail.mil).

SHARON A. EVANS, PhD, CIP  
Deputy Director, Human Research Protection Office  
Office of Research Protections  
US Army Medical Research and Materiel Command

Note: The official copy of this memo is housed with the protocol file at the Office of Research Protections, Human Research Protection Office, 810 Schreider Street, Fort Detrick, MD 21702-5000. Signed copies will be provided upon request.

Classification: UNCLASSIFIED  
Caveats: NONE

## Appendix 2. Quad Chart

# Hemorrhage Control for Major Traumatic Vascular Injuries

EDMS: 5840 and Quad Chart for Year 1 Quarter 2 Report  
W81XWH-14-1-0112



PI: John B. Holcomb, M.D.

Org: University of Texas Health Science Center at Houston Award Amount: \$1,991,317

## Study Aims

- Determine current practice patterns for the treatment of patients with non-compressible torso hemorrhage (NCTH) among 4 clinical sites using a retrospective study design;
- Conduct a 2-day Delphi Panel meeting of military and civilian experts to gain consensus regarding anatomic, technology, credentialing, competency, and training issues for catheter-based hemorrhage control and inform the development of the prospective study.
- Conduct a 4-site prospective observational study to test the hypothesis that less-invasive device-driven and expert-led hemorrhage control techniques improve survival in NCTH patients and definitively inform development of catheters, devices and training required for catheter-based hemorrhage control.

## Approach

This is a 2-phase study which will include a retrospective study and Delphi Meeting in Phase I, then a prospective study in Phase II informed by the Phase I activities.



These pictures represent the care of the severely injured NCTH patient, which will be studied in this project.

Accomplishments: Received UTHealth and all external site IRB approval; Received overall HRPO approval; Executed subcontracts with 2 external sites; Developed REDCap application; Continued monthly conference calls with sites to discuss protocol and study administration and operationalization activities. Data collection nearly completed at 3 of 4 sites. Analysis will begin next quarter.

## Timeline and Cost

Activities	Y1Q1	Y1Q2	Y1Q3	Y1Q4	Y2Q1
Obtain DoD HRPO/local IRB approvals	→				
Conduct retrospective data collection			→		
Analysis of retrospective data					→
Hold Delphi meeting					→
Estimated Budget (\$K)	\$91	\$289	\$289	\$325	\$249

## Goals/Milestones

### CY14 -15 Goals – Phase I

- ☐ Obtain DoD HPRO and local IRB approvals
- ☐ Conduct retrospective data collection
- ☐ Analysis of retrospective data
- ☐ Hold Delphi Meeting

### CY15-16 Goals – Phase II

- ☐ Obtain regulatory amendment approvals for prospective study
- ☐ Conduct prospective observational study
- ☐ Data Analysis/Publications

## Comments/Challenges/Issues/Concerns

- The timeline for the project has changed slightly. Data collection will be completed in Y2Q1. There are no financial or scientific concerns. We are still awaiting execution of the SAMMC/ISR PI and negotiating agency change.

## Budget Expenditure to Date

Projected Expenditure: Y1Q4 \$325K; YTD \$994K

Estimated Actual Expenditure: \$275K

Updated: October 1, 2015